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675R/T Kit Quick Start Guide

This guide helps you install and use your **675R/T** for the first time.
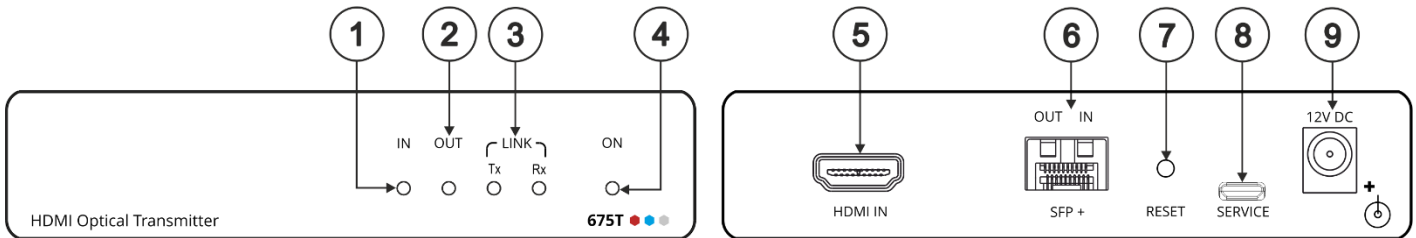
Go to www.kramerav.com/downloads/675R/T to download the latest user manual and check if firmware upgrades are available.
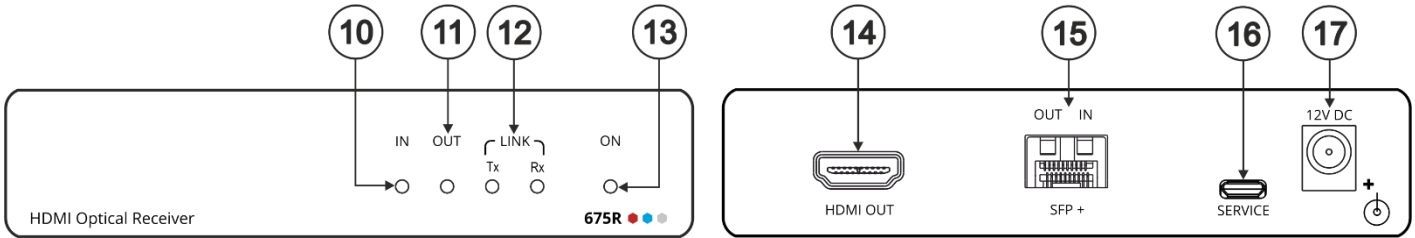
Step 1: Check what's in the box

- ☑ **675T** HDMI Optical Transmitter
- ☑ **675R** HDMI Optical Receiver
- ☑ 2 **OSP-MM1** Fiber Optic SFP+ Transceivers
- ☑ 2 Power adapters and cords
- ☑ 8 Rubber feet
- ☑ 1 Quick start guide
- ☑ 2 Bracket sets

Step 2: Get to know your 675R/T

675T

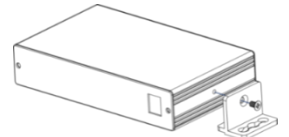| #	Feature	Function
1	IN LED	Lights green when a connected source device (with an active HDMI signal) is detected. Flashes 4 times green when resetting the device. Off when a connected source device with an active signal is not detected.
2	OUT LED	Lights green when both a connected HDMI source (with an active HDMI signal) and a connected far-end HDMI acceptor are detected. Off if either the source or the acceptor is not connected, or an active signal is not present.
3	LINK Tx and Rx LEDs	Light green when OUT IN SFP+ is connected and an active optical link is detected. Light red when OUT IN SFP+ is connected, but an active optical link is not detected. Off when OUT IN SFP+ is disconnected.
4	ON LED	Lights green when the device receives power.
5	HDMI™ IN Connector	Connect to an HDMI source.
6	OUT IN SFP+ Connector	Connect the fiber optic cable to the plugged-in SFP+ optical module connector.
7	RESET Recessed Button	Press and hold to reset settings to factory default values.
8	SERVICE Micro USB Port	Connect to a PC to perform firmware upgrade (via K-Upload).
9	12V DC Power Connector	12V DC connector for powering the unit.

P/N: 2900-301389QS   Rev: 1

#	Feature	Function
10	IN LED	Lights green when a connected far-end source device (with an active HDMI signal) is detected. Off when a connected source device with an active signal is not detected.
11	OUT LED	Lights green when both a connected HDMI source (with an active HDMI signal) and a connected HDMI acceptor are detected. Off if either the source or the acceptor is not connected, or an active signal is not present.
12	LINK Tx and Rx LEDs	Light green when OUT IN SFP+ is connected, and an active optical link is detected. Light red when OUT IN SFP+ is connected but an active optical link is not detected. Off when OUT IN SFP+ is disconnected.
13	ON LED	Lights green when the device receives power.
14	HDMI™ OUT Connector	Connect to an HDMI acceptor.
15	OUT IN SFP+ Connector opening	Connect the fiber optic cable to the plugged-in SFP+ optical module connector.
16	SERVICE Micro USB Port	Connect to a PC to perform firmware upgrade (via K-Upload).
17	12V DC Power Connector	12V DC connector for powering the unit.

Step 3: Install 675R/T

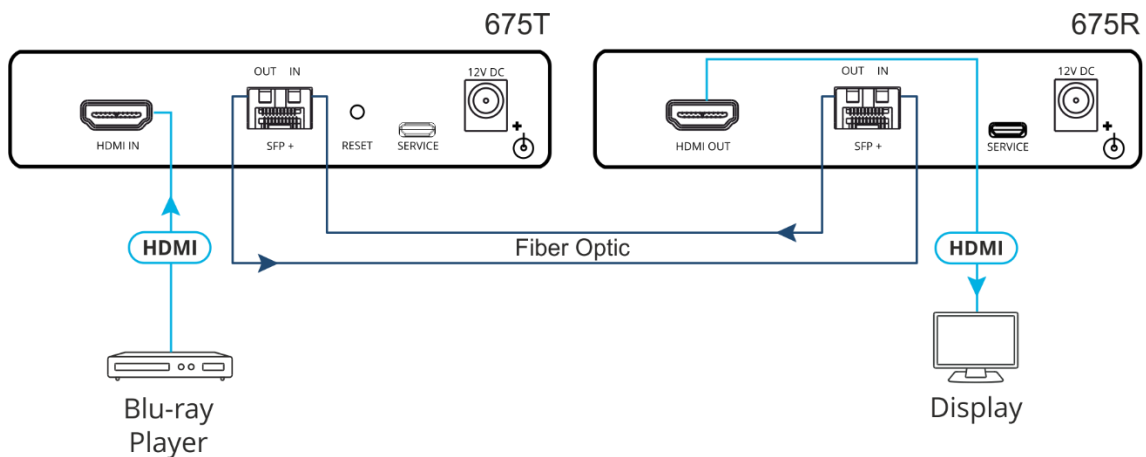Install **675R/T** using one of the following methods:

- Attach the rubber feet and place the unit on a flat surface.
- Fasten a bracket (included) on each side of the unit and attach it to a flat surface (see www.kramerav.com/downloads/675R/T).
- Mount the unit in a rack using the recommended rack adapter (see www.kramerav.com/downloads/675R/T).

- Ensure that the environment (e.g., maximum ambient temperature & air flow) is compatible for the device.
- Avoid uneven mechanical loading.
- Appropriate consideration of equipment nameplate ratings should be used for avoiding overloading of the circuits.
- Reliable earthing of rack-mounted equipment should be maintained.
- Maximum mounting height for the device is 2 meters.

Step 4: Connect the inputs and outputs

Always switch OFF the power on each device before connecting it to your **675R/T**. For best results, we recommend that you always use Kramer high-performance cables to connect AV equipment to **675R/T**.
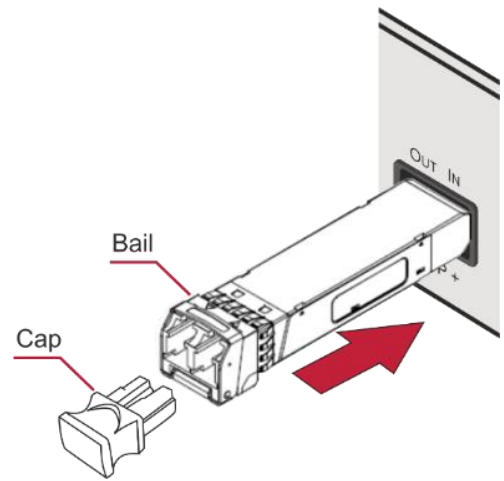

Make sure that you always cross-connect the fiber connections, Rx OUT to Tx IN and Rx IN to Tx OUT, as unidirectional optical transmission is carried on simplex fiber strands.

To install/replace the OSP-MM1 or other Kramer recommended SFP+ transceiver:

1. Pull the bail out and remove the currently installed transceiver, insert the protective cap and store in a safe place.
2. Make sure the bail of the new transceiver is pushed up, in the closed position.
3. Insert the new transceiver into the relevant optical device SFP+ slot and push it in until it clicks.
4. Remove the protective cap and store it in a safe place for future use.

Warning: Connecting the SFP+ transceiver to an LC(APC) fiber connector may cause poor performance and damage the connector! Refer to www.kramerav.com/downloads/OSP-MM1 for more information.

Warning: Class 1 Laser Product

*   Invisible laser radiation present.
*   Avoid long-term viewing of laser.
*   Avoid the use of magnifying viewing aids or instruments (such as binoculars, telescopes, microscopes and magnifying lenses, but not spectacles or contact lenses).
*   Avoid placing optical devices in the emitted beam that could cause the concentration of the laser radiation to be increased.

Step 5: Connect the power

Connect the power cords to **675T** and **675R** and plug into the mains electricity.

Safety Instructions (See www.kramerav.com for updated safety information).

Caution:

*   There are no operator serviceable parts inside the unit.

Warning:

*   Use only the power cord that is supplied with the unit.
*   Disconnect the power and unplug the unit from the wall before installing.

Technical Specifications

675T

Input	HDMI	On a female HDMI connector
Output	Fiber Optic	On LC connector(s)
Port	USB	On a female micro USB connector

675R

Input	Fiber Optic	On LC connector(s)
Output	HDMI	On a female HDMI connector
Port	USB	On a female micro USB connector

General

Video	Max Bandwidth	18Gbps
	Max Resolution	4096x2160@60Hz 4K@60 (4:4:4)
	Compliance	HDMI 2.0 and HDCP 2.2
Extension Line	Optical Fiber	Multi-mode (MM) or single-mode (SM)
	Optical Module	Kramer 10Gbps SFP+ IEEE 802.3ae compliant modules (**OSP-MM1** modules included)
Multi-mode Line	Compliance	G.651.1 OFNR fiber
	Max Reach over OM3 MM Fiber	3km (1.8 miles)
Single-mode Line	Compliance	G.652D OFNR fiber
	Max Reach over OS1 SM Fiber	33km (20.5 miles)
Controls	Front Panel	IN, OUT, LINK and ON LED indicators; **675T**: RESET button
Power	Consumption	12V DC, **675T**: 280mA; **675R**: 220mA
	Source	12V DC, 2A
Environmental Conditions	Operating Temperature	0° to +40°C (32° to 104°F)
	Storage Temperature	-40° to +70°C (-40° to 158°F)
	Humidity	10% to 90%, RHL non-condensing
Regulatory Compliance	Safety	CE, UL
	Environmental	RoHs, WEEE
Enclosure	Size	Tool
	Type	Aluminum
	Cooling	Convection ventilation
Accessories	Included	2 **OSP-MM1** fiber optic transceivers, 2 power adapters, 2 power cords and 2 bracket sets
Specifications are subject to change without notice at www.kramerav.com		

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